

ABSTRACT

A process for printing images by means of an electrographic or electrostatic device using a toner that is cured by multiple applications of energy. The toner has energy-activated reactive components such as radiation-curable sites and reactive functional groups. An image is formed on a substrate by the toner without materially activating the reactive components. The reactive components are subsequently activated by applying a first energy source to adhere the image to the substrate by cross-linking and bonding the image permanently to the substrate, or by transferring the image to a second substrate. A second energy source is applied simultaneously with, or subsequently to, the first energy source, to promote cohesive strength of the image by cross-linking within the toner particles that form the image. The resulting image is permanently bonded to the substrate, yielding substantially enhanced image durability and fastnesses.